



# Engineering/Public Works Department

## Records Management Program - Document Imaging Application Case Study

This project established the first of a four-phase records management program development with an electronically accessible document imaging/archiving program and its attendant policies, procedures and costs. Three subsequent planned program phases will extend this first phase imaging accomplishment to future planning for microfilm imaging, Intranet and Internet document access development (with their attendant security requirements), centralized document copy production and copy distribution.

### **Case Study Executive Summary**

- **Study Considerations:**
  1. Protect existing City Engineering infrastructure and project drawings from loss
  2. Improve the access and dissemination of all department digital and stored data
  3. Establish formal archive document management procedures and production methods
- **Goals:**
  1. Image infrastructure and project documents for digital access
  2. Store imaged document originals at a secure offsite facility
  3. Establish a formal department Disaster Preparedness Plan
  4. Develop phased document microfilm archiving, internet and intranet access, workflow and records management policies, city-wide program adoption
  5. Identify grant possibilities to assist in project funding
- **Solutions:**
  - VIDAR Select P36 Large Format Scanner
  - RICOH IS330DC Large Format Scanner
  - Digital Document Director software
  - SCP EasyScan software
  - Iron Mountain Records Management and Storage
  - 2004/2005 GHRAB Historical Records Grant Program
- **Statistics:**
  - 915 drawing sets (1992–1999) in dept. files, does not include sets to be collected from other City locations in the future or those developed from 2000 forward
- **Timetable for planning and implementing the project:**
  - Planning and Procurement: 6 months
  - Development, implementation: 12 months
- **Cost sharing of project:**
  - Project cost: \$58,700.00
    - o City share: \$50,065.00
    - o GHRAB Grant share: \$8,635.00
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  - 678/297-6200

Simultaneously was developed a proactive Disaster Preparedness Plan that complies with State and Federal document archiving requirements. This plan identifies the broad nature of specific hazard types affecting the safety of our in-house physical and digital document history, and the methods and resources with which the potential damage can be minimized and/or the data recovered or replaced. The plan also describes and puts in place a proactive employee safety and evacuation procedure for prescribed safe personal reaction to these same disaster hazards.

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### **Project Description/Plan of Work**

- ✓ This project addressed the need to protect existing Engineering drawings from loss and to improve the access and dissemination of this data by establishing formal archive document management procedures and production methods
- ✓ Using the awarded GHRAB Grant funds and City Match funds; we have:
  - a. purchased a 36" wide, large format scanner and an 11"x17" scanner to create electronic image files from paper drawing originals
  - b. purchased document management software and attendant user training for the proper cataloging and electronic access of the scanned drawing and document files

- c. contracted outside secured storage of drawing originals to protect and prevent loss of original data history
- d. developed and adopted a Records Management Policy and Procedure and a Records Disaster Preparedness Plan that formally maintains and protects all historical drawings and documents for the Engineering Public Works department
- e. developed a City Resolution authorizing and adopting the Records Management Plan

## **Project Accomplishment**

- ✓ At the beginning of the consideration of this project, the Engineering/Public Works department stored , in-house, 915 sets (approximately 472 cubic feet) of engineering drawings encompassing City facilities projects, residential and commercial developments, state and local road projects, and traffic engineering projects. The majority of these drawings are original, signed; "blue-line" project construction-drawing copies whose rapid aging is significantly greater than an original vellum drawing. The need to preserve and protect this valuable City engineering data is extremely important for historical recovery and use. Basic conservatory preservation (frayed edge trimming and tear taping) is being applied as each drawing sheet is imaged and reassembled into the drawing set for permanent storage. To date approximately forty-two percent of these drawing sets and their individual sheets have been digitally converted.
- ✓ The vitality and value of the stored information remains well established as demonstrated by the continued regular access made by every City department, citizens, State and Federal interests, developers and contractors as well as the normal Engineering/Public Works department requirements.
- ✓ The steps that have been taken to complete this project are:
  - a. identified and purchased the equipment and software necessary for production and maintenance of electronic files and printed copies of file selections
  - b. identified and contracted outside secured storage of original drawings that have been converted into electronic files
  - c. developed and adopted appropriate records management and disaster preparedness plans, policies and procedures; and necessary City legislation to comply with Georgia State and/or Federal mandate
  - d. applied for, and was awarded, grant funding from the Office of the Secretary of State, Georgia State Archives, Georgia Historical Records Advisory Board 2004 Historical Records Grant Program. The GHRAB Historical Records Grant Program makes a singularly significant contribution to individual Georgia state agencies, local governments and statewide libraries and historical repositories records management/archiving programs because it is the only grant-funding source available focused upon these interests. The City of Alpharetta Engineering/Public Works department has found the GHRAB grant program, its awarded funds, the related archival workshops and the GHRAB staff mentoring a valuable learning experience and guide to our records program development.
  - e. We will continue to move forward with our records management/archiving program goals to the second of the four phases in our planning.

To establish the initial program and to proof the original production planning, it was decided to control the entire project with a single individual effort. This decision, while being a heavy multi-task responsibility, has greatly contributed to the establishment of focused production methods and procedures. These procedures will support our unique records character while also spanning our multi-department responsibilities with maximum user-friendly adaptability and with minimal enterprise development effort.

For the upcoming phase planning, the combinations of scanning production volume, file identification, file coding, and index database entry will be a strong consideration for:

1. increasing production staff
2. records management software improvements
3. related budget development
4. microfilming of scanned data files

The full individual sheet indexing/cataloging and file disc copying of scanned originals will become an integral component of each scan completed.

The GHRAB grant award funds provided the impetus to move the development of our records imaging/archiving and records management program from a limited access manual mode to a digitally open access. With this new digital access, staff can now locate archived information immediately from their workstation and then readily e-mail the data to an off-site enquirer. Response to public enquiries for past history data has been much faster and is expected to improve as the remaining balance of the drawing inventory is converted. The title identification of individual drawing sheets has reduced the time to locate precise information to opening files at a work station, selecting information immediately viewed and sending a print command to an in-house printer (if a copy is needed). Handling the paper originals of drawings digitally converted has been eliminated and the scanned originals are now safely stored at an accessible off-site facility. Because only a section of a drawing is normally all that is required for most enquiries, that section is now copied with in-department printers eliminating the need and cost for an off-site produced full size copy. The equipment and software have been extremely useful across department lines in preparing documents in a timely and economical manner not available to the City in the past.

Because of a price differential between the large format scanner and document software first referenced in the grant application and the best bid pricing used in the final purchases, we had a nominal grant fund variance left to expend at the end of the grant period. With the permission of the GHRAB we purchased the following project relevant items with the remaining funds:

1. Computer Data Multi-Media Cabinet – to store temporary archival backup media and department project record discs for annual culling to permanent storage or destroy policies.
2. External Desktop Hard Drive – 300GB capacity – for redundant digital archive storage of the scanned image files, which are also stored to CD-R archive disc format. This unit and the CD-R discs are strictly for archival storage and will be moved to permanent offsite storage when filled.
3. Map Frames – as part of the Disaster Prevention Plan, these framed employee evacuation maps are installed at selected emergency evacuation route positions directing individuals safely from the facility zone areas during a disaster incident. The mapping also specifies the locations of known potential hazard areas, first aid and eye wash stations, fire extinguishers and specialty equipment.

## **Planned Program Continuation**

- ✓ With the successful completion of the first phase (document imaging), we are now beginning developing the second phase of our planned four-phase program to establish a fully functional Historical Document Archiving and Records Management program for the City of Alpharetta. In the second phase we will be considering:

### **Phase 2**

1. adding microfilm conversion of digital drawing files as the longest lived form of archive record preservation
  2. continuing the conversion of all remaining historical text, graphic and photographic originals to electronic files and into microfilm format
  3. continuing the transfer of converted document originals and the microfilm conversions to the contracted storage facility
  4. upgrading and improving the current records management software to a more expanded capability
- ✓ The remaining third and fourth phases that will complete the total program plan will be initiated upon completion of the preceding phase 2:

### **Phase 3**

- establish Intranet and Internet access policies and procedures and equipment for controlled and simplified access by city functionaries, outside enquiries, citizen enquiries, training and professional requirements
- introduce large format printer equipment to provide for centralized and controlled production and distribution of archive copy requests

### **Phase 4**

- expand the program as established by Phases 1 through 3 as the benchmark for adoption by all City departments in compliance with Federal and State directed local government historical record management mandates
- determine and assure that the overall program is consistent and self- sustaining by all City department applications of the program
- make policy and procedure provisions for progressive changes to the program as future City needs and requirements change
- Each of the phases will have their own budget requirements and additions to the original policies and procedures established in Phase 1 and Phase 2
- Each phase will be reviewed for available grant applications